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Andrew P. Heron

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EXAMINER

KANE, CORDELIA P

ART UNIT

PAPER NUMBER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/509,089	<b>Applicant(s)</b> HERON ET AL.	
	<b>Examiner</b> CORDELIA KANE	<b>Art Unit</b> 2432	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed April 28, 2009 have been fully considered but they are not persuasive. Applicant argues that claim 24 is fully supported by the specification as evidenced by Figure 6, and page 11, lines 19-30. However, in Figure 6, the first controller 31 is on the same side of the network as the monitor station 32. However, in claim 19, from which 24 depends, the monitor station and the first controller are on two separate network sides. Therefore the 112 rejection is maintained.
2. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to combine Sit in view of Crichton to comply with compatible communication standards (column 1, lines 23-25)
3. Applicant also argues that Crichton do not solve the problem of establishing a persistent connection that remains open. However, Crichton teaches establishing a tunnel between the two controllers, and maintaining that connection while data passes in both directions (column 5, lines 9-29).

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4. Applicant's arguments with respect to claims 1 – 4, 12 – 17, 19 – 23, 25, 30 and 31 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

a. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 24 and 30 – 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 24, it is unclear how the first controller would be local to the monitor station when it is located on a separate network side.

7. Referring to claims 30 – 32, applicant refers to the second controller, however there is no second controller mentioned previously in the claim.

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 102***

9. Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Crichton.

Referring to claim 18, Crichton teaches:

- b. Initiating and maintaining a connection between a first controller and a second controller (column 5, lines 49-51, Figure 5).
- c. Sending a plurality of device control messages from the control station to the first controller and then from the first controller to the second controller while the connection remains open between the first controller and the second controller (column 5, lines 17-29).

***Claim Rejections - 35 USC § 103***

10. Claims 1 – 5, 11 – 17, 19 – 25, and 29 – 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sit, and further in view of Crichton.

11. Referring to claim 1, Sit teaches:

- d. A first controller connected to the network on the first network side for receiving control messages from a control station (column 3, lines 63-65).
- e. A second controller connected to the network on the second network side, for receiving the device control messages from the first controller and controlling the operation of at least one device (column 4, lines 3-9).
- f. Means for initiating (column 3, lines 63-65) and maintaining a connection between the first controller and the second controller (column 6, lines 39-41).
- g. Wherein the first controller is configured to send the device control messages to the second controller (column 4, lines 28-31, column 6, lines 31-43, Figure 4).

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12. Sit does not explicitly disclose leaving the connection open between the first controller and the second controller. However, Crichton discloses establishing a connection between the two controllers (column 5, lines 12-13) and then data flows in both directions (column 5, lines 27-29). Sit and Crichton are analogous art because they are from the same field of endeavor, networks. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Sit and Crichton before him or her, to modify the system of Sit to include the open communication of Crichton. The suggestion/motivation for doing so would have been to establish secure tunnels through firewalls and providing end to end privacy and integrity of the communications (column 2, lines 19-25).

13. Referring to claim 2, Sit teaches that the second controller initiates connection by sending a connection request to the first controller (column 3, lines 63-65).

14. Referring to claim 3, Sit teaches that the access control means is configured to prevent connection requests from the first controller from reaching the second controller (column 2, lines 23-25).

15. Referring to claim 4, Sit teaches that the connection is maintained between the first and second controllers following receipt of the connection request from the second controller, and to permit the first controller to send the device control messages to the second controller (column 4, lines 27-36).

16. Referring to claim 5, Crichton teaches that the device control messages are sent in an encrypted form (column 6, lines 16-18).

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17. Referring to claim 11, Crichton discloses that TCP/IP is the method used for communication in networks (column 1, lines 20-22).
18. Referring to claim 12, Sit teaches that the control station is configured to receive information relating to an event occurring at the devices via the first (column 4, lines 48-60) and second controller (column 4, line 64-column 5, line 1).
19. Referring to claim 13, Sit teaches that the control station generates device control messages in response to received information (column 4, lines 39-42).
20. Referring to claim 14, Sit teaches that the control station initiates a connection to the first controller to enable it to receive information (column 3, lines 53-65).
21. Referring to claim 15, Sit teaches that the first controller initiates a connection to the control station (column 4, lines 48-60).
22. Referring to claim 16, Sit teaches that the first controller is triggered to initiate the connection to the control station after initiation of the connection to the first controller by the second controller (column 3, lines 44-47).
23. Referring to claim 17, Sit teaches that the second controller controls one or more devices (column 3, lines 51-53).
24. Referring to claim 19, Sit teaches:
  - h. A monitor station connected to the network on the first network side for receiving information concerning the devices (column 4, lines 64-66).
  - i. A first controller connected to the network on the second network side for receiving information and sending information to the monitor station (column 5, lines 1-3).

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- j. A second controller for monitoring operations of the device and sending information to the first controller (column 4, line 63-column 5, line 1).
  - k. Means for establishing (column 3, lines 63-65) and maintaining a connection between the first controller and the monitor station (column 6, lines 39-41).
  - l. Wherein the first controller is configured to send information to the monitor station after initiation and maintenance (column 6, lines 31-43) of a connection to the first controller by the monitor station (column 4, lines 29-31).
25. Sit does not explicitly disclose leaving the connection open between the first controller and the monitor station. However, Crichton discloses establishing a connection between the two controllers (column 5, lines 12-13) and then data flows in both directions (column 5, lines 27-29). Sit and Crichton are analogous art because they are from the same field of endeavor, networks. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Sit and Crichton before him or her, to modify the system of Sit to include the open communication of Crichton. The suggestion/motivation for doing so would have been to establish secure tunnels through firewalls and providing end to end privacy and integrity of the communications (column 2, lines 19-25).
26. Referring to claim 20, Sit teaches that the system is configured to maintain a connection between the monitor station and the first controller and to permit the first controller to send information received to the monitor station without requesting a new connection (column 4, lines 27-36).



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27. Referring to claim 21, Sit teaches generating device control messages in response to received information (column 4, lines 39-42).

28. Referring to claim 22, Sit teaches that the device control messages are sent to the device via the first and second controllers (column 4, lines 7-9).

29. Referring to claim 23, Sit teaches that the second controller is connected to the network on the second network side (Figure 2).

30. Referring to claim 24, Crichton teaches a client monitoring the server, and a client end proxy local to the client sending messages to the server, which controls the server (column 4, lines 30-37, Figure 9).

31. Referring to claim 25, Sit teaches that the communications path between the monitor station and the remote site comprises a wide area network (Figure 2).

32. Referring to claim 29, Crichton discloses that TCP/IP is the method used for communication in networks (column 1, lines 20-22).

33. Referring to claim 30, Sit teaches:

m. Initiating and maintaining a connection between a first controller connected to the network on the second network side and a monitor station connected to the network on the first network side (column 4, lines 29-31, Figure 2).

n. Sending event information relating to operation of the device from a second controller monitoring operations of the at least one device, to the first controller and then to the monitor station (column 4, line 63-column 5, line 3).

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34. Sit does not explicitly disclose leaving the connection open between the first controller and the monitor station. However, Crichton discloses establishing a connection between the two controllers (column 5, lines 12-13) and then data flows in both directions (column 5, lines 27-29). Sit and Crichton are analogous art because they are from the same field of endeavor, networks. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Sit and Crichton before him or her, to modify the system of Sit to include the open communication of Crichton. The suggestion/motivation for doing so would have been to establish secure tunnels through firewalls and providing end to end privacy and integrity of the communications (column 2, lines 19-25).

35. Referring to claim 31, Sit teaches generating device control messages in response to received information (column 4, lines 39-42).

36. Claims 6 – 9 are rejected under 35 USC 103 (a) as being obvious over Sit in view of Crichton in view of Rudolf Wegener's US Publication 2003/0216891 A1.

Sit in view of Crichton discloses all the limitations of the parent claim. Sit in view of Crichton does not explicitly disclose the control station being remote to both the first and second controller. However, Wegener discloses having the control station remote from both a first and second station (Figure 3). Sit in view of Crichton and Wegener are analogous art because they are from the same field of endeavor, remotely controlling a device. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Sit in view of Crichton and Wegener before him or her,

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to modify the system of Sit in view of Crichton to include the remote control station of Wegener. The motivation for doing so would have been to reduce the amount of unacceptable delays (page 1, paragraph 3).

37. Referring to claim 7, Sit teaches a system wherein a communications path between the control station and the remote site comprises a wide area network (Figure 2, element 150).

38. Referring to claim 8, Sit teaches further access control means between the wide area network and the first controller (Page 2, lines 66-67).

39. Referring to claim 9, Sit teaches that the further access control means comprises a firewall (column 2, line 66).

40. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sit in view of Crichton in view of Wegener, and further in view of Shaw.

Sit in view of Crichton in view of Wegener discloses all the limitations of the parent claim. Sit in view of Wegener does not explicitly disclose providing inner and outer firewall to the first controller with a demilitarized zone. However, Shaw discloses the use of having a controller (see Figure 1, element 102, and paragraph 0029) in a “demilitarized zone” between a first firewall (see Figure 1, element 100) (see Figure 1, element 102) and a second firewall (see Figure 1, element 100) which separates it from the wide area network (see Figure 1, element 104).

Hence, it would have been obvious to one of ordinary skill in the art to have included the technology taught by Shaw into the invention taught by Sit in view of

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Crichton in view of Wegener above, to prevent unauthorized access to the first controller from the wide area network. In doing so would help ensure that the client complies with the security requirements, before allowing the client access to the network inside the inner firewall. Hence, to do so, would add an additional layer of security to the system (see paragraph 0026 of the Shaw reference).

41. Claims 26 – 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sit in view of Crichton, and further in view of Shaw.

Referring to claim 26, Sit discloses all the limitations of the parent claim. Sit in view of Crichton does not explicitly disclose providing inner and outer firewall to the first controller with a demilitarized zone. However, Shaw discloses the use of having a controller (see Figure 1, element 102, and paragraph 0029) in a “demilitarized zone” between a first firewall (see Figure 1, element 100) (see Figure 1, element 102) and a second firewall (see Figure 1, element 100) which separates it from the network (see Figure 1, element 104).

Hence, it would have been obvious to one of ordinary skill in the art to have included the technology taught by Shaw into the invention taught by Sit above, to prevent unauthorized access to the first controller from the network. In doing so would help ensure that the client complies with the security requirements, before allowing the client access to the network inside the inner firewall. Hence, to do so, would add an additional layer of security to the system (see paragraph 0026 of the Shaw reference).

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42. Referring to claim 27, Sit teaches a third firewall between the second controller and the wide area network (column 2, lines 48-52).

43. Referring to claim 28, Sit teaches that the third firewall is configured to not permit inbound connection requests to the second controller (column 1, lines 65-67).

44. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sit as applied in view of Crichton and further in view of Johnson.

45. Sit discloses exchanging device control messages between said first and second controller (column 4, lines 39-42). Sit does not explicitly disclose the first controller being behind the firewall and the second controller being outside the firewall, or using the first controller to control the devices using messages from the second controller.

46. However, Crichton discloses:

- o. That the first and second network sides are separated by a firewall and the first controller is located behind said firewall and the second controller is located outside the firewall (Figure 4).

- p. Using said first controller to control said devices (column 5, lines 39-40) using respectively corresponding signaling protocols in response to control messages from said second controller (column 5, lines 54-59).

47. Sit and Crichton are analogous art because they are from the same field of endeavor, communicating across a firewall. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Sit and Crichton before him or her, to modify the system of Sit to include the proxies of Crichton. The

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suggestion/motivation for doing so would have been to establish a secure communication link across multiple firewalls (column 2, lines 52-55).

48. Sit in view of Crichton does not explicitly disclose holding open a port, and using that port for communication. However, Johnson discloses holding a port open for data requests (page 4, paragraph 31). Sit in view of Crichton and Johnson are analogous art because they are from the same field of endeavor, remote communication. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Sit in view of Crichton and Johnson before him or her, to modify the communication system of Sit in view of Crichton to include holding the port open of Johnson. The suggestion/motivation for doing so would have been security is easily maintained (page 4, paragraph 31).

### ***Conclusion***

49. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CORDELIA KANE whose telephone number is (571)272-7771. The examiner can normally be reached on Monday - Thursday 8:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

/C. K./  
Examiner, Art Unit 2432

/Gilberto Barron Jr./  
Supervisory Patent Examiner, Art Unit 2432